CERTIFICATION GUIDE FOR OPERATORS AND WATER QUALITY ANALYSTS OF DRINKING WATER SYSTEMS

Certification of Drinking-Water System Operators and Water Quality Analysts Regulation, O. Reg. 128/04

Revised: April 2010



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1 Introduction

1.1 Purpose of Certification Guide

This certification guide provides information on the requirements to secure and renew a drinking water operator and water quality analyst certificate. The guide provides interpretation of the Certification of Drinking-Water System Operators and Water Quality Analysts regulation, O. Reg. 128/04, made under the *Safe Drinking Water Act*, 2002.

This certification guide is provided for information purposes only. Where there is a discrepancy between this program guide and O. Reg. 128/04, the regulation prevails. Owners, operating authorities, operators and water quality analysts should refer to O. Reg. 128/04 and the *Safe Drinking Water Act* for a complete understanding of their legal responsibilities, and certification compliance requirements.

1.2 Certification Program Is Administered by a Third Party

The operator/water quality analyst certification program is administered by a third party under contract with the Ministry. Presently the third party is the Ontario Water Wastewater Certification Office (OWWCO).

The Certification Program Administrator is responsible for possessing certificate and certificate renewal applications, processing exam applications, coordinating and marking exams, notifying operators of the need to renew their certificate, selling exam study guides, informing operators on continuing education courses that meet the necessary criteria, and providing information to operators.

Details on how to contact the Program Administrator is provided in section 11 of this guide.

1.3 Separate Guide to Completing Certification Forms

Supplementary to this certification guide is a 'Guide to Completing MOE Certification Forms', which can be found on the website of the Certification Administrator. The guide to completing forms contains a list of all the forms related to municipal subsystem classification and operator certification and certificate renewal, and provides instructions on when and how to complete specific forms. (The forms can also be found on this website).

1.4 Separate Wastewater Operator Licensing Program Guide

A separate program guide for the licensing of wastewater operators is available on the ministry's drinking water portal.

1.5 Tips on Reading this Guide

The reference to <u>Director</u> throughout the regulation is reference to a person or persons appointed by the Minister of the Environment as having the authority to make such decisions. The 'Director' under O. Reg. 128/04 and O. Reg. 129/04 is the director of the Drinking Water Programs Branch, Drinking Water Management Division, Ministry of the Environment.

The meaning of key terms used in this guide are set out in shaded text within the section in which the term is used. For exact legal definitions of terms, please refer to the relevant regulations and the *Safe Drinking Water Act*, 2002.

Policy that supplements O. Reg. 128/04 is contained in separate Guidelines, and can be obtained from the Certification Administration Office (see sections 11 and 12 of this guide for contact information) or on the ministry's website. However, in some instances, part of the policy has been included in this guide (in boxes within the relevant section).

1.6 Program Mandate

The certification program establishes occupational standards for operators and water quality analysts. It is also intended to give greater assurance of safe drinking water to the residents of Ontario through ensuring that operators have the education, experience and knowledge to perform their responsibilities effectively.

2 Systems and Subsystems

2.1 System Categories Governed by O. Reg. 128/04

Section 12 (1) under the SDWA requires that no person shall operate a <u>municipal</u> drinking-water system or a <u>regulated non-municipal</u> drinking-water system unless the person holds a valid operator's certificate issued in accordance with the regulations.

The Drinking-Water Systems Regulation (O. Reg. 170/03) identifies the regulated non-municipal system categories that require a certified operator. The following five system categories, (please see O. Reg. 170/03 for their definition), require a certified operator and are governed by O. Reg. 128/04:

- large municipal residential
- small municipal residential
- non-municipal year round residential
- large non-municipal non-residential system serving a designated facility
- large municipal non-residential system serving a designated facility

For routine operational testing, such as conducting chlorine residual and turbidity tests, all systems, except for large municipal residential systems, may also use a "Supervised Person". For more information on the designation of a "Supervised Person", please review "Steps to Become a Supervised Person", document P1BS 5747e.

2.2 Drinking Water System Categories

For the purpose of operator certification, O. Reg. 128/04 has categorized two types of systems:

- municipal residential systems, and
- limited systems.

2.2.1 Municipal Residential Systems

Under O. Reg. 128/04 municipal residential systems include the following system categories defined in O. Reg. 170/03:

- large municipal residential, and
- small municipal residential <u>surface water</u> or GUDI (Groundwater Under Direct Influence of Surface Water) only.

Municipal residential systems are divided into three types of <u>subsystems</u>, with each having four classification levels as follows:

- water distribution and supply subsystem Classes I to IV
- water distribution subsystem Classes I to IV
- water treatment subsystem Classes I to IV.

A **distribution and supply subsystem** is a municipal residential drinking water <u>groundwater</u> system that distributes and treats water, where the treatment is limited to disinfection. It does not include a system deemed to have source water under the direct influence of surface water, otherwise referred to as a GUDI system. (See section 2 of O. Reg. 170/03 for description of a GUDI).

A distribution and supply subsystem includes groundwater systems:

- with primary disinfection using chlorination, chloramination, UV or ozonation,
- that include addition of chemicals for stability or corrosion control.

A **distribution subsystem** is a municipal residential drinking-water system that supplies and distributes water but does not include that part of the water system that collects, produces or treats water.

A **distribution subsystem** includes a subsystem that:

- provides secondary disinfection (i.e. booster chlorination meaning to add chlorine to treated water received from another subsystem, because there was no chlorine residual evident)
- disinfects¹ after performing maintenance or making a repair.

The distribution subsystem is a subset of the distribution and supply system. It was created to allow operators who are not responsible for the supply of drinking water to write a more focused exam on the linear components of a drinking water system.

Please note that an operator can only hold either a water distribution certificate or a water distribution and supply certificate.

A water treatment subsystem is a municipal residential subsystem that collects, produces or treats water, but does not include that part of the drinking-water system that is a distribution or distribution and supply subsystem.

A **treatment subsystem** includes any system that provides fluoridation, filtration, or any other treatment. A treatment system includes all systems deemed to be GUDI as described under section 2 of O. Reg. 170/03.

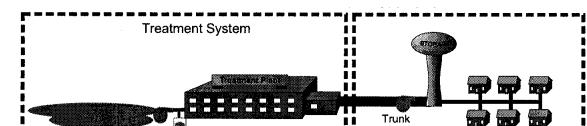
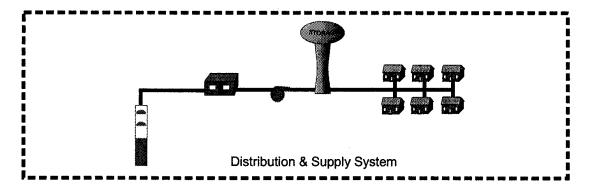


Figure 1: Separate Water Treatment and Water Distribution Systems

Distribution System

¹ Such 'disinfection' refers to the process in a distribution system, where, after performing a maintenance function on the system such as repair a watermain break or replace a valve, the new equipment is chlorinated before being put into operation.

Figure 2: Water Distribution and Supply System (Disinfection Only)



2.2.2 Limited Systems

Limited systems are systems which, compared to large municipal systems, have limited operational requirements. The following system categories are defined as Limited System under O. Reg. 170/03:

- small municipal residential groundwater only;
- large non-municipal residential system;
- large non-municipal non-residential system serving a designated facility
- large municipal non-residential system serving a designated facility

For each of these there are two types of subsystems:

- limited surface water subsystem, and
- limited groundwater subsystem.

A **limited** <u>surface</u> water subsystem is a system where the raw water supply is surface water. It would include a system deemed to be under the direct influence of surface water, otherwise referred to as a GUDI system as described under section 2 of O. Reg. 170/03.

A **limited groundwater subsystem** is one where the raw water is groundwater. It does not include a system deemed to be a GUDI system.

3 System Classification

3.1 Overview

Only municipal residential systems are classified, since they cover a range of different subsystem types and sizes. Classification determines their operating complexity, with a higher class assigned as the complexity increases.

Limited systems are not classified as they have only one level for surface and groundwater. Owners determine whether or not they own a limited system based on the categories and definitions provided in O. Reg. 170/03.

Systems are required to be operated by persons holding a valid operator's certificate of the same type as the type of subsystem. For **municipal residential systems** at least one operator must hold a certificate of the same class or higher than the class of subsystem (for example a Class IV subsystem must operated by at least one Class IV operator).

3.1.1 Classification of Municipal Residential Systems

The owner of a new municipal residential subsystem must file an application with the Director to have the classification of their subsystem determined. Subsystems are classified by assigning classification points for subsystem characteristics in the Tables found in Schedule 1 of O. Reg. 128/04.

Municipal systems will receive a classification reflecting the <u>type</u> of subsystem and a <u>class</u>, <u>for example Drinking Water Treatment Class II</u>. The class reflects the operational complexity, with the higher classes reflecting greater operational complexity.

The owner must ensure that the certificate of classification is conspicuously displayed at the subsystem or, if this is not practical (e.g. at some distribution systems), the certificate should be displayed at the premises from which the subsystem is managed.

3.1.2 Re-classification of Municipal Subsystems

If the subsystem is altered or no longer meets the criteria under which it was originally classified, the owner must apply to have the classification re-determined.

An owner needs to apply for reclassification each time they seek approval for an amendment to their drinking water works permit under the SDWA (subsection 3 (3) of the SDWA)².

Further, the Director may request that a subsystem have their classification re-determined if the classification points in Schedule 1 of the regulation have been amended, or the Director is of the opinion that the subsystem or group of subsystems no longer meets their original classification.

3.1.3 Systems Which do not Fall under Provincial Jurisdiction

Drinking water systems which do not fall under provincial jurisdiction do not require classification of their systems (i.e., federal facilities and First Nations systems). The program administrator will review the system and provide a notional classification. This notional classification will indicate what level and class the system would be classified as if the system fell under provincial jurisdiction. Operators who work in these facilities can be certified, and the experience gained working in theses facilities will be evaluated for upgrades and renewals, just as all other operators.

In addition, the program administrator may assess limited subsystems, if an operator wishes to apply experience from that subsystem towards a Class 1 certificate.

² Note: if it is clear that an alteration that would fall under section 3 (3) of the SDWA will not affect the classification points in Schedule 1 of O. Reg. 128/04, then the owner should not apply for a reclassification.

4 Certification of Operators

4.1 Overview

Section 12 (1) of the SDWA requires that only persons holding a valid operator's certificate can operate a municipal system or a regulated non-municipal system.

'Operating' functions are those functions typically performed by an operator as described in the definition of 'operator' below.

This includes a maintenance worker, a laboratory technician, or other employee who is 'on call' and is expected to perform operating functions when 'called out' to do so.

4.1.1 Functions that Must be Performed by a Certified Operator

An operator is defined by the functions they perform, not by the job title, union affiliation, or whether or not they are in a supervisory or management position.

An **operator** means a person who conducts operational checks of or who adjusts, tests, or evaluates a process that controls the effectiveness or efficiency of a subsystem and includes a person who adjusts or directs the flow, pressure or quality of water within the subsystem, if that person works in a 'distribution subsystem' or a 'distribution and supply subsystem'.

O. Reg. 170/03, Schedules 1, 2, 6, 7 and 8 provide that the following must be done by a certified operator for system categories that require a certified operator (please refer to O. Reg. 170/03 for exact wording):

- take appropriate action in response to a disinfection equipment alarm
- make adjustments to the water treatment equipment
- examine test results of continuous monitoring equipment within 72 hours
- conduct tests for maintenance and operational checks
- comply with:

a. the required maintenance schedule or, where this is not available, the manufacturer's instructions re: checking or maintaining water treatment equipment

b. if (a) is not applicable, in the case of a system providing chlorination or chloramination, at least weekly check to confirm proper functioning. For other systems, water treatment equipment is to be checked at least every three months to confirm proper functioning.

Further, under the Drinking Water Testing Services regulation, O. Reg. 248/03, an operator is considered a 'qualified' person for the purpose of <u>conducting water tests</u>³ and can test for the 24 operational parameters listed under O. Reg. 248/03 (e.g. testing for chlorine residual, turbidity, alkalinity, pH). Any other water test (analysis) prescribed by O. Reg. 170/03 must be done by a person or laboratory holding a 'drinking water testing services' licence issued by the ministry.

³A person does not need to be certified to <u>take a water sample</u>, which is a different function than <u>conducting a water test (i.e. analysis).</u>

A person must be certified as an operator in order to perform the following functions (also referred to as 'operating' functions).

Note: this list is not a complete list. Other tasks which impact quality of drinking water may also require an operator's certificate to undertake. For additional information, please contact the ministry:

- control flow or pressure of drinking water in drinking water subsystems
- disinfect or treat water using chemicals and/or through making adjustments to treatment equipment
- monitor gauges, meters and control valves related to disinfection, treatment or distribution of drinking water
- conduct water tests for the 24 operational parameters listed under O. Reg. 248/03 (e.g. testing for chlorine residual, turbidity, alkalinity, pH)
- start and stop pumps, engines and generators to control and adjust flow and treatment
- open and close valves and gates, whether done manually or by remote control (a non-certified person can open and close valves for the purpose of 'exercising' a valve)
- add chlorine or other chemicals to the 'distribution' or 'distribution and supply' subsystem
- perform 'wet-taps'
- flush hydrants
- isolate watermains and reconnect isolated watermains
- maintain logs (e.g. shift logs) or other forms of record-keeping related to treatment and distribution activities in the subsystem, make entries into such logs/records including meter and gauge readings

A person does not need to be certified to perform the following functions:

- repair previously isolated watermains
- install or do maintenance on a service meter or perform work on a service line that is covered under the Building Code
- close a watermain valve as a result of an emergency (i.e. watermain break) if approved by a certified operator (if not an emergency, this must be done by a certified operator)
- operate (close/open/adjust) a curb stop at the property line which controls the flow of water to a service
- take water for fire fighting purposes
- perform 'dry taps'

• open or close hydrants for non-operational purposes such as the taking of water by the municipality⁴. (The expectation is that a certified operator with responsibility for the system has been consulted prior to such taking of water).

flow and pressure testing

⁴ The ministry's compliance role is in relation to functions that affect the quality of water. It does not extend to the end use of the water.

A person or contractor, that is not certified as a drinking water operator, can perform functions normally required to be done by a certified operator provided they are being directly supervised by a certified operator, meaning the certified operator is physically present and monitoring the work being performed. All operational work is the responsibility of the certified operator.

4.1.2 Types of operator certificates

Operator certificates correspond to the types of subsystems.

Table 1:

| Type of Subsystem | Classes of Certificates | | |
|------------------------|-------------------------|--|--|
| Water Treatment | Operator-in-Training | | |
| | Class 1 | | |
| | Class 2 | | |
| | Class 3 | | |
| | Class 4 | | |
| Water Distribution and | Operator-in-Training* | | |
| Supply | Class 1 | | |
| | Class 2 | | |
| | Class 3 | | |
| | Class 4 | | |
| Water Distribution | Class 1 | | |
| | Class 2 | | |
| | Class 3 | | |
| | Class 4 | | |
| Limited System | Limited Surface Water | | |
| | Limited Groundwater | | |

^{*} The Water Distribution and Supply and Water Distribution Operator-in-Training certificates are identical.

A person may only hold a distribution or a distribution and supply certificate. A person may not hold both types of certificate at the same time.

4.2 Certificate Qualifications - Operators-In-Training

An operator-in-training (OIT) certificate allows new operators to gain one year of experience required in order to become a Class I operator.

To secure an OIT certificate a person must:

- successfully complete grade 12 or equivalent (see ministry guideline 3.1 for a list of Grade 12 equivalents);
- pass an OIT or Class I exam.

An OIT certificate expires 16 months after it was issued, unless the holder of the OIT completes the **Entry Level course**, described in section 4.3.1 of this guide, within the 16 months. If the OIT completes the entry level course within the 16 months, their certificate will be extended to three years from the date it was originally issued⁵.

If an applicant has successfully completed the Entry Level course at the time they apply for an OIT certificate and provided they have grade 12 and pass the OIT exam, they will be issued a certificate for three years.

<u>OITs</u> who let their certificate expire at 16 months must take the entry level course of study and pass an exam in order to obtain a new OIT certificate.

4.2.1 OITs are valid for three years

OIT certificates expire at the end of three years from the date it was originally issued. To remain certified, the OIT needs to secure a Class I certificate.

The Director may renew an OIT certificate for an additional three years if the OIT has passed the entry level course but was unable to obtain the one year of experience required for a Class I certificate. Examples of when this may apply are for a part-time operator, or an operator who was absent for an extended period.

For more specific information on OIT expiration, renewals and extensions please review ministry guideline 2.4.

4.2.2 Temporary OIT Certificates (Students)

An individual, such as a college student, who works as an OIT for no more than four consecutive months in a seven-month period is exempt from having to take the course of study. To secure this temporary OIT certificate, the individual must successfully complete grade 12 and pass the specific exam.

The temporary OIT certificate issued under these circumstances will expire after 12 months. To regain a certificate, the individual must take the **Mandatory Renewal Course**. Such temporary OIT certificate will be issued only four times.

Once a temporary OIT certificate has expired a person may transfer to a regular certificate. The regular certificate will be valid for 16 months (unless the Entry Level Training Course has been completed, in which case the certificate will be valid for 36 months). See Guideline 2.3 for more details.

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⁵ In the rare circumstance that the person holding the OIT certificate has been unable to complete the Entry Level Training course, the Director may extend the certificate by another six months. At the end of the 6 months, if the course is completed, the OIT certificate is extended to three years from the date it was originally issued. The Director will exercise this discretion in limited circumstances e.g. an OIT is ill or away for an extended period of time. The Director cannot issue a second six month extension.

This temporary OIT certification provision enables an owner or operating authority to employ summer students without the expense of the Entry Level Course.

4.3 Certificate Qualifications – Limited System & Class I to IV Municipal

The Director will issue an operator's certificate provided the applicant meets all of the qualifications for the specific certificate applied for and pays the required fee.

To qualify for an operator's certificate, a person must:

- meet education and training requirements;
- meet experience requirements; and
- pass a certification examination.

The higher the level of certificate, the more education and experience required. The experience must be gained in the type of municipal residential subsystem corresponding to the certificate for which the individual is applying. For example, if the applicant is applying for a treatment certificate, the person must have experience in a treatment subsystem. (See Note 6 to Table 4 below for exceptions).

Operating⁶ experience is experience <u>performing</u> the functions described in section 4.1.1 of this guide. The exception is if the sole function performed by the person is that of conducting water tests – in this case such function will not be considered as meeting operating experience. For further clarification operating experience means on-site charge and/or hands-on operating of the system.

The certificate qualifications for each type and class of certificate are summarized in the following table (also see Notes to Table immediately following the table).

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⁶ A description of what constitutes related and different experience is available in a Ministry of the Environment guideline.3.4: Experience as an Operator

Table 2

| Certificate | Education/ Training (See Notes 1, 3 & 4) | Experience (See Notes 2,5,6 & 7) | Exam | Other (See Note 10) |
|-------------------------|--|--|--|--|
| OIT | Grade 12 or equivalent. Within 16 months must complete Entry Level Course | N/A | OIT or Class I (See note 11) | Exempt from taking entry level course for persons who qualify for temporary OIT certificate |
| Class I | Grade 12 or equivalent. Must have completed Entry Level Course | 1 year as a valid operator experience while holding an OIT | Class I exam | Experience must be 'operating' experience – see definition above |
| Class II | Grade 12 or equivalent. | Total of 3 years (See note 8) | Class II exam | Must hold a Class I certificate (or deemed to hold) for that type of municipal residential subsystem (See note 12) |
| Class III | Grade 12 or equivalent + 2 years of additional education or training the Director considers relevant | Total of 4 years, of which 2 years must be as an OIC in a Class II, III or IV system | Class III exam | Must hold a Class II certificate for that type of municipal residential subsystem (See note 13) |
| Class IV | Grade 12 or equivalent + 4 years of additional education or training the Director considers relevant | Total of 4 years, of which 2 years must be as an OIC in a Class III or IV system | Class IV exam | Must hold a Class III certificate for that type of municipal residential subsystem (See note 13) |
| Limited Surface | Grade 12 or equivalent. (See Note 9 for exception) As of August 1, 2005, also successfully complete Director approved course | N/A | Limited Surface Subsystem exam | |
| Limited Ground-water | Grade 12 or equivalent (See Note 9 for exception). As of August 1, 2005, also successfully complete Director approved course | N/A | Limited Ground- water Subsystem exam | |

Notes to Table:

1. Grade 12 equivalency is generally that described in the box immediately following. For a detailed description, please refer to the ministry's guideline 3.1.

The following is considered equivalent to having secured grade 12:

- a Canadian post secondary diploma or degree
- securing the General Educational Development (GED) certificate
- a 2-3 year certificate or 3-4 year diploma from a recognized Canadian university or community college (a certificate or diploma from a business school, design academy, or computer school are not on their own considered grade 12 equivalent, but may be considered together with other qualifications such as the high school grade level completed, other continuing education or training secured)
- a secondary school graduation diploma or GED from other Canadian provinces and territories (CEJEP from Quebec) and the US will be considered equivalent
- a certificate of apprenticeship from Ontario or other Canadian jurisdictions
- completion of a 2 or 3 year college program directly related to water or wastewater.
- experience from other countries may be considered as Grade 12 equivalent, contact the Certification Administrator for details see section 11 for contact information, or review guideline 3.1 for more specific information.
- 2. Only experience gained while certified to do the work will be considered.
- 3. For the purpose of calculating education or training obtained through continuing education, 450 hours of education or training equals one year. This translates into 45 Continuing Education Units (CEU), since 1 CEU equals 10 hours of training.
- 4. Substitute experience for education/training:
 - a. Class III applicants may substitute up to one year experience as an operator-in-charge in a Class II, III or IV subsystem, above that required to meet the experience qualifications, for one year of education/training (or 450 hours of additional education/training.
 - b. Class IV applicants may substitute up to two years of experience as an operator-incharge in a Class III or IV subsystem, above that required to meet the experience qualifications, for the two years of additional education/training.
- 5. <u>Substitute education/training for experience</u>: Class II, III and IV applicants can substitute education & training (except for elementary and secondary education), above that required to meet the additional education and training qualifications for up to 50% of the required operating experience.

Eligible substitutions include:

- relevant post secondary education such as community college, trade school, university
- training that meets the 'continuing education' training criteria for purpose of certificate renewal
- 6. <u>Substitute different experience</u>: Class II, III and IV applicants may be permitted to substitute experience as an operator in a different system, experience in a system other than as an operator, or other relevant qualifications, for certificate qualifying experience. However, the Director needs to be satisfied that such experience or qualifications are relevant to the certificate being applied for.

Examples of different experiences that may be considered are:

- experience gained working in a wastewater plant
- experience gained working in a laboratory conducting tests on drinking water or wastewater
- experience gained within a drinking water system doing electrical or mechanical maintenance, or work as a technical expert or trades person

The ratio is often 2 to 1 or 3 to 1. For example, 3 years of distribution experience would be equivalent to one year of treatment experience if applying for a higher treatment certificate.

(See Ministry guideline 3.4 for more detail)

7. Application of part-time experience: The application of part-time experience is defined in ministry guideline 3.4, and operating experience for contractors is detailed in ministry guideline 5.3.

Generally an operator who works in a subsystem that does not require the operator to be at the subsystem full-time but does require the operator to be available full-time, will receive one year experience credit for each year employed. However, an operator working part-time in a system requiring full-time operators will receive credit for the actual time worked.

8. The years of experience indicated in this table are not cumulative. For example, a Class 1 operator is required to obtain 1 year of experience. The Class 2 operator requires a total of 3 years of experience, which includes the 1 year required to obtain the Class 1.

- 9. Operators who worked in a system that is considered a limited subsystem, for one month within the 12 months before August 1, 2004, require grade 10 to be eligible to obtain a limited ground or surface water certificate.
- 10. An operator may upgrade their certificate only one class higher than the certificate they currently hold, and only can only hold a certificate one level higher than the highest class of system for which they are employed.
- 11. An operator has the choice to challenge the OIT or Class I exam when entering the program. If the operator does not yet have a year of experience under a valid licence the operator will receive the OIT licence until this requirement has been met.
- 12. An operator who holds a Class 1 WT certificate is deemed to hold a Class I WD and WDS certificate.
- 13. If an operator wants to switch between a WD and WDS certificate the individual may challenge the corresponding WDS 20 question exam, and provide the required WDS experience, or a combination of WD and WT experience.

4.3.1 Entry Level Training Course

To obtain a 36 month Operator-in-Training or a Class 1 certificate an operator must complete the Entry Level Training Course. This comprehensive 2-week course is available through the Walkerton Clean Water Centre. The course is delivered in two modules, a 1-week correspondence module and a 1-week classroom module. For more information see section 12.

Students graduating from selected community college diploma programs may be deemed to have completed the Entry Level Course. If you have any questions please contact your college or the certification office.

4.3.2 Transferability of Operator Certificates

An operator who holds one type of certificate may be deemed to hold other certificates for the purpose of being able to work in that subsystem. The following chart shows this transferability:

Table 3

| Certificate Held by Operator | Certificate Operator Deemed to Also Hold |
|---------------------------------------|---|
| Class I to IV Water Treatment | ✓ Class I Distribution certificate |
| | ✓ Class I Distribution and Supply certificate |
| | ✓ Limited Surface Water certificate |
| | ✓ Limited Groundwater certificate |
| Class I to IV Distribution and Supply | ✓ Distribution certificate of the same class |
| | ✓ Limited Groundwater certificate |
| Limited Surface Water | ✓ Limited Groundwater certificate |
| Class I to IV Distribution | Not transferable |
| Limited Groundwater | Not transferable |
| OITs | Not transferable |

Note: The operator does not receive a certificate of the type they are deemed to hold.

4.3.3 Conditional Operator Certificate

The Director may issue a conditional operator certificate for operators holding any type and class of **municipal residential subsystem** certificate (except for an operator-in-training certificate) and for operators holding a **limited subsystem** certificate.

The Director may issue a conditional certificate if:

- the owner or operating authority that employs or has offered to employ the applicant satisfies the Director that they cannot obtain the services of an operator of the type and class required under this regulation (for example, if an owner of a Class III water treatment subsystem is unable to find an operator holding a Class III water treatment certificate); and
- the owner or operating authority gives both the applicant and the Director a written commitment to help the applicant comply with all the conditions of the subsystem; and
- the required fee is paid.

A conditional operator's certificate is valid <u>only</u> for the subsystem for which it has been issued. The operator cannot use it to work in another facility. The Director may impose certain conditions in a conditional certificate. The certificate expires three years after it is issued, or on an earlier date specified on the certificate, but may be renewed by the Director, if the renewal requirements are met. (See section 4.4 of this guide, Certificate Renewal below).

Examples of when a conditional certificate might be issued by the Director are as follows:

- when a system upgrade or expansion changes the classification level of the system, and no operator employed in the system has a certificate at the new classification level of the system
- when systems are unable to hire a person with the required class of certificate.

Conditions that may be placed on a conditional certificate include, but are not limited to:

- the operator meeting specific training requirements in addition to the annual training requirements
- technical support or operational back-up be available to the operator holding the conditional certificate
- operator passing a General Education Development test.

4.3.4 Operator Certificate to be Displayed

The owner or operating authority must clearly display the certificate of every operator employed by them at the operator's workplace, or if this is not practical (such as for a distribution system), at the premises from which the subsystem is managed.

4.3.5 Reciprocity

Under the Agreement on Internal Trade, Ontario Labour Mobility Act, the Ministry of Environment recognizes certificates from other Canadian jurisdictions that have certification programs equal to that held in the Province of Ontario. The Ministry still requires the completion of the Entry Level Course for the issuance of a class 1 drinking water certificate for those individuals who are applying from a Canadian jurisdiction which does not have an entry level program. Contact the certification administrator for more details.

4.4 Certificate Renewal

4.4.1 Overview

Renewal of an operator certificate is the responsibility of the holder of the certificate. An expired certificate is not a valid certificate. Contravening section 12 of the SDWA – i.e. working as an operator without holding a valid operator certificate – is an offence under the Act. Therefore, it is important that operators notify the Certification Office of a change in address and renew their certificate before it expires.

Generally the certification office issues a renewal notice and application form to an operator ninety (90) days prior to the date when their certificate expires. Operators who apply for renewal, meet the renewal qualifications, and pay the required fee will receive a new certificate containing the new expiry date.

4.4.2 Renewal of Operator Certificates

Operator certificates expire every three years. To qualify for renewal, the operator must have:

- a. completed the training requirements in section 29 of O. Reg. 128/04 see Annual Training Requirements, section 4.4.3. ⁷
- b. at least three months experience in the previous 36 months of working as an operator in a subsystem or related experience

In general **related** experience includes a role in the drinking water and wastewater industry that enables a person to remain knowledgeable and current on drinking water treatment or distribution equipment and methods.

For example, an operator who becomes a drinking water supervisor, trainer or technical expert would meet the experience requirement during the time that they are actively engaged in such role.

Other related experience could include experience as an electrical/mechanical or maintenance employee of the drinking water system, or as a laboratory technician

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⁷ The Director may renew a certificate for six months even if the training requirements are not met if the Director is satisfied that the training requirements will be met at the end of the six months. At the end of the six months, if the training requirements are met, such certificate will be renewed three years from the original expiry date. The Director will exercise this discretion in limited circumstances, such as an operator being ill or out of the country for an extended period.

or scientist who tests water.

See ministry guideline 3.4 for more detail on related experience.

c. paid the required fee.

For a conditional operator's certificate to be renewed, the applicant for renewal must also have met the conditions of the conditional certificate.

4.4.3 Training Requirements

Certificate renewal is conditional on meeting the training requirements for operators described in Section 29 of O. Reg. 128/04.

The owner or operating authority must take reasonable steps to ensure that every operator employed in their subsystem completes the required hours of training each year, over the three years between certificate renewals. For more information on the training requirements for each type of system, see ministry guideline 4.4.5.

4.4.4 Type of Training

The annual hours of training required under O. Reg. 128/04 are a minimum. The hours consist of three components:

- 1. continuing education training (typically classroom type courses and workshops with a set curriculum and evaluation);
- 2. completion of the **Mandatory Renewal Course** which counts towards 7 hours of the continuing education requirement
- 3. on-the-job-practical training (provided in the workplace and would include equipment demonstrations, health & safety within the subsystem, etc).

The <u>continuing education training</u> must be Director approved based on criteria provided in O. Reg. 128/04:

- have documented learning objectives;
- be planned and provided by a qualified training provider;
- include a means to verify that the participants have learned the material covered;
- cover subject matter that is directly related to the duties typically performed by an operator.

The criteria for on-the-job practical training must meet specific criteria in O. Reg. 128/04:

- have documented learning objectives;
- be provided by a trainer with expertise in the subject matter;
- cover subject matter directly related to the duties typically performed by an operator.

The **Mandatory Renewal Course** is offered through the Walkerton Clean Water Centre. This one day course is available as distance learning and classroom format across Ontario. From 2005-2008 the course was entitled "Preventing Waterborne Illnesses". From 2009-2011 the course is entitled "Safeguarding Drinking Water Quality". The *Safeguarding Drinking Water Quality* course focuses on the essentials of safe drinking water, drinking water inspections,

making water safe through adequate treatment, maintaining drinking water quality by ensuring distribution system integrity, and the roles and responsibilities of drinking water operators. Completion of this course is mandatory for all operators at least once every 3 years. The full details of what constitutes Director approved continuing education training, as well as the full criteria for on-the-job practical training, are available in two separate guidelines, 4.2 ('Director Approved' Continuing Education Training Criteria) and 4.3 (On-the-Job Practical Training Criteria).

4.4.5 Annual Training Requirements

Operators must complete the annual training requirements listed in Table 4 in order to be eligible for a certificate renewal. The following rules apply for completing the training requirements:

The hours required are based on the highest class of system an operator works in.

Operators holding both distribution and treatment certificates do not need to complete double the amount of hours. Hours of training will be accepted for both distribution and treatment.

The training may be completed during any period during the three year period an operator holds a certificate. For example, an operator in a Class II system must complete 35 hours of training per year. The operator may take 105 hours the first year of the certificate and 0 hours in years two and three. The average for the three years meets the required 35 hour minimum.

An operator may substitute on-the-job practical with continuing education. An operator <u>cannot</u> substitute continuing education with on-the-job.

Only courses approved by the ministry and posted on the ministry's approved course list may be used to meet the continuing education requirement. Other courses will not be accepted or only accepted as on-the-job practical training.

The same course cannot be taken more than once during the three year renewal period.

Part-time operators must take the full number of hours since all operators, whether they work full-time or part-time, need the same level of skills and knowledge to protect the safety of drinking water.

An operator may use conferences to meet up to 25% of the continuing education requirement. Excess conference attendance may be used to meet the on-the-job practical training.

Table 4 Annual Training Requirements

| System Class | Continuing | On-the-Job | Total |
|--------------------------|------------|------------|----------|
| | Education | Practical | |
| Limited System – Ground | 7 hours | 13 hours | 20 hours |
| Limited System – Surface | 7 hours | 13 hours | 20 hours |
| Class I | 7 hours | 23 hours | 30 hours |
| Class II | 12 hours | 23 hours | 35 hours |

| Class III | 14 hours | 26 hours | 40 hours |
|-----------------------|----------|----------|----------|
| Class IV | 14 hours | 36 hours | 50 hours |
| Water Quality Analyst | 7 hours | 13 hours | 20 hours |

Operators working in more than one type and/or class of drinking-water subsystem during the same period must complete the hours of training required for the highest type and class of subsystem. Thus, an operator holding two different certificates, each with a different expiry date, need only complete the training for the highest type and class of subsystem in which they work.

<u>Operators not employed in a subsystem</u> on the day their certificate expires, but who wish to renew their certificate, must complete the hours of training for the highest type and class of subsystem for which they are certified.

The owner or operating authority must keep records for five years of all the on-the-job practical training completed by operators in their employ. Such record should include the:

- name of operator
- date of the training
- method used for training
- name of instructor
- duration of each training session taken by such operator
- the subject(s) covered

Operators must keep records of continuing education training in order to be able to submit such record to the Certification Administrator along with the application for certificate renewal.

4.5 Re-issuance of Operator Certificate after It Expires

If the renewal application is made within one year of the expiry date, the applicant must:

- meet the normal certificate renewal requirements;
- pay a late renewal fee in addition to the normal renewal fee.

If the renewal application is made more than one year after the expiry date, the applicant must:

- meet the qualifications in Schedule 2 for that type of Class of certificate (including pass the certification exam);
- complete the **Mandatory Renewal Course** referred to section 4.4.4 of this guide; and
- pay a late renewal fee in addition to the regular renewal fee.

4.6 Replacement of Certificates

The Director may issue a replacement certificate if an operator's certificate has been lost or destroyed, or if the operator's name has changed and the original certificate is returned to the Director. A fee will be charged.

4.7 Refusal to Issue or Renew an Operator's Certificate

The Director may refuse to issue or renew an operator's certificate if:

- any of the circumstances under which the Director can revoke or suspend a certificate under apply;
- the applicant is the holder of any other water operator's licence or certificate or water quality analyst's certificate that has been revoked or suspended or that the Director is authorized to revoke or suspend;
- the certificate to be renewed was revoked or suspended;
- the applicant is a holder of a wastewater operator's licence under O. Reg. 129/04 that was suspended or that the Director is authorized to revoke or suspend.

4.8 Revocation or Suspension of an Operator's Certificate

The Director may revoke or suspend an operator's certificate, including an operator-in-training's certificate, for reasons described in subsection 13 (1) of O. Reg. 128/04. The Director may issue a certificate of another type and class than the certificate suspended or revoked, providing the applicant meets the necessary qualifications.

The circumstances that might cause a Director to revoke or suspend a certificate are:

- The application was fraudulent or contained inaccurate information
- The person was discharged from employment in a drinking water subsystem for gross negligence or for incompetence, unless the person has not yet exhausted the rights of appeal available under a collective agreement⁸
- The person has worked as an operator for any length of time without being certified for that type or class of operator he or she worked as or has lied about holding a type or class of certificate that they do not hold
- The person has previously had an operator's certificate or a water quality analyst's certificate revoked or suspended, and the Director has reasonable grounds to believe that the person is not competent as an operator
- The person previously had an operator's licence or a wastewater operator's licence issued under O. Reg. 435/93 and O. Reg. 129/04 revoked or suspended, and the Director has reasonable grounds to believe that the person is not competent as an operator
- The person has failed to perform the duties of an operator-in-charge as described in section 26 of O. Reg. 128/04, or has failed to keep records as described in section 27 of O. Reg. 128/04, which has resulted in:
 - ➤ the discharge of a pollutant into the natural environment;
 - > an adverse effect on the health or safety of an individual; or
 - ➤ an adverse effect on a process in the subsystem or the system of which the subsystem is a part.
- The person has failed to:

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⁸ If a person chooses not to appeal within the time required, it would have the same effect as having exhausted their right of appeal.

- > exercise the level of care, diligence and skill that a reasonably prudent operator would be expected to exercise in a similar situation; or
- > act honestly, competently and with integrity, with a view to ensuring the protection and safety of the users of the system.
- The person has failed to meet or has contravened any condition that is set out in his or her certificate.

4.9 Appeals

Any certificate decision made by the Director under the regulation may be appealed to the Environmental Review Tribunal. Details on appeal rights are included in all letters issues by the Director which denies an application for certificate.

5 Water Quality Analyst – Certification and Certificate Renewal

5.1 **Overview**

Any water testing (analysis) prescribed by O. Reg. 170/03 must be done by a person or laboratory holding a 'drinking water testing services' licence issued by the ministry. The exception is <u>conducting a test</u> for the 24 operational parameters listed under subsection 2(1) of the Drinking Water Testing Services regulation, O. Reg. 248/03, (e.g. testing for chlorine residual, turbidity, alkalinity, pH) which can be done by a qualified person. A qualified person includes a certified drinking water operator (including an operator-in-training), and a **water quality analyst**. ⁹

A water quality analyst means a person who holds a water quality analyst's certificate issued under section 16 of O. Reg. 128/04 or who holds a conditional water quality analyst's certificate issued under section 17 of O. Reg. 128/04.

5.2 Certification of Water Quality Analysts

The Director will issue a water quality analyst certificate provided the applicant meets all the qualifying requirements which are as follows:

- successfully complete grade 12 or equivalent;
- pass WQA exam;

⁹A person does not need to be certified to <u>take a water sample</u>, which is a different function than <u>conducting a water test (i.e. analysis)</u>. The expectation is that a person has been instructed on how to properly take the sample to ensure a reliable test. A person does not need to be certified or hold a WQA certificate to conduct water tests if they are being directly supervised by a certified operator or a water quality analyst.

- have one year of experience working in a drinking water system performing tests on water or working in a facility that provides related experience or have experience considered equivalent by the Director; or
- complete Director approved training related to the testing of water; and
- pay the required fee.

5.2.1 Water Quality Analyst Certificate to be Displayed

The owner or operating authority must ensure that a copy of the water quality analyst's certificate is clearly displayed at the WQA's workplace, or if that is impractical, then from the premises from which the subsystem is managed.

5.2.2 Conditional Water Quality Analyst Certificate

An individual may apply for a conditional water quality analyst certificate. The Director may issue a conditional WQA certificate if:

- the owner or operating authority that employs or has offered to employ the WQA satisfies
 the Director that they cannot readily obtain the services of a certified water quality
 analyst; and
- the owner or operating authority gives both the applicant and the Director a written commitment that they will assist the applicant to comply with any conditions imposed on the certificate; and
- the required fee is paid.

A conditional WQA certificate is valid only for the subsystem for which it has been issued.

A conditional certificate expires the earlier of the date on the certificate or three years from the date it was issued. However, the Director can renew the conditional certificate if the renewal conditions have been met (See section 5.2.3 of this guide).

5.2.3 Renewal of Water Quality Analyst Certificate

Water Quality Analyst certificates expire every three years. To qualify for renewal, the WQA must have:

- a. completed the training requirements set out in section 31 of O. Reg. 128/04 (See Training Requirements in section 4 of this guide), and
- b. at least three months experience in the previous 36 months of working as a water quality analyst in a subsystem or related experience, and
- c. paid the required fee.

For a conditional WQA certificate to be renewed, the applicant must also have met the conditions set out in the conditional certificate.

5.3 Re-issuance of Water Quality Analyst Certificate after it Expires

If the renewal application is made within one year of the expiry date, the applicant must:

• meet the normal certificate renewal requirements; and

• pay a late renewal fee in addition to the normal renewal fee.

If the renewal application is made more than one year after the expiry date, the applicant must:

- meet the requirements for a new WQA certificate (i.e. pass the exam);
- complete the **mandatory course** described in section 4.4.4 of this guide; and
- pay a late renewal fee in addition to the renewal fee.

5.4 Replacing Water Quality Analyst Certificate

The Director will issue a replacement certificate if:

- the certificate is lost or destroyed; or
- the name of the water quality analyst changes and the original certificate is returned to the Director; and
- the required fee is paid.

5.5 Refusal to Issue/Renew a WQA Certificate

The Director may refuse to issue or renew a water quality analyst's certificate if:

- any of the circumstances under which the Director can revoke or suspend a certificate under apply;
- the applicant is the holder of any other certificate that has been revoked or suspended or that the Director is authorized to revoke or suspend;
- the applicant is a holder of a wastewater operator's licence under O. Reg. 129/04 that was suspended or that the Director is authorized to revoke or suspend;
- the certificate to be renewed is revoked or suspended under section 19.

5.6 Revocation/Suspension of WQA Certificate

The Director may revoke or suspend a water quality analyst's certificate for the reasons described in section 19 of O. Reg. 128/04.

The circumstances that might cause a Director to revoke or suspend a certificate are as follows:

- the application was fraudulent or contained inaccurate information;
- the person was discharged from employment in a drinking water subsystem for gross negligence or for incompetence, unless the person has not yet exhausted the rights of appeal available under a collective agreement ¹⁰;
- the person has worked as a water quality analyst for any length of time without being certified or has lied about being certified;

¹⁰ If a person chooses not to appeal within the time required, it would have the same effect as having exhausted their right of appeal.

- the person has previously had a water quality analyst's certificate revoked or suspended, and the Director has reasonable grounds to believe that the person is not competent to perform their duties:
- the person has failed to:
 - > exercise the level of care, diligence and skill that a reasonably prudent operator would be expected to exercise in a similar situation; or
 - ➤ act honestly, competently and with integrity, with a view to ensuring the protection and safety of the users of the system.
- the person has failed to meet or has contravened any condition that is set out in his or her certificate.

5.7 Water Quality Analyst Training Requirements

See section 4.4 for more details on training requirements.

6 Certification Examinations

6.1 Exam Application

In addition to meeting the experience and education requirements specific to the different operator certificates, the applicant must also pass a certification exam in order to receive a certificate.

Applicants may only write examinations one class higher than the class of certificate that they hold. Applicants must wait a minimum of 90 days from the date of writing to take the next class level exam or to retry an exam after a failure.

Examination application(s) can be secured from the office of the Certification Administrator. (See Section 11 of this guide for contact information).

6.2 Locations

A list of the exam dates and locations can be found on the website of the Certification Administrator (see Section 12 of this guide for contact information).

6.3 Confirmation Letter

The Certification Office will send an examination confirmation letter. This letter will confirm the following details:

- the exam to be written (i.e. WTII)
- the date and time scheduled for the exam
- location of the exam (map included)

- materials required to bring to the exam (personal photo ID and calculator)
- certificate eligibility requirements (details on the documents that need to be submitted in order to have the certificate issued upon passing the examination).

Note: Under normal circumstances, drinking water examinations are scheduled in the morning, and wastewater examinations are scheduled for the afternoon. You must bring this confirmation, plus a government issued photo ID and a document with your address to the examination session or you will not be able to write the exam on that date.

If an operator writes an examination for a certificate they have not yet acquired, the examination mark is valid for five years from the day of completion. For example, if a class III operator writes his class IV examination, but is not eligible for the class IV certificate, that exam mark is valid for a five year period. For more information on this policy, review ministry guideline 3.11.

Following notice of having passed the exam (pass is 70%), operators and water quality analysts may need to submit the appropriate documentation related to other certificate qualifying requirements.

7 Operating Standards for Subsystems

The owner or operating authority of a subsystem must ensure that every operator employed in that subsystem holds a certificate applicable to that type of subsystem, or a conditional certificate applicable to that particular subsystem.

7.1 Overall responsible operator

The owner or operating authority¹¹ must designate an overall responsible operator (ORO) to ensure that a knowledgeable, experienced staff person is available at all times to provide advice to all operators working within the subsystem and to respond to emergencies.

An **overall responsible operator** means an operator designated as overall responsible operator of a subsystem under section 23 of O. Reg. 128/04

The owner or operating authority of each **municipal residential subsystem** must designate as overall responsible operator, an operator who holds a certificate for that type of subsystem and that is of the same class as or higher than the class of that subsystem. For example, the overall responsible operator of a Class III water treatment subsystem must hold a Class III or Class IV water treatment subsystem operator's certificate.

¹¹ An operating authority is defined under the SDWA as the person or entity that is given responsibility by the owner for the operation, management, maintenance or alteration of the system. For the purpose of O. Reg. 128/04 this could be a public works department of a municipality, or a staff person assigned such responsibility by the municipality or non-municipal owner.

The owner or operating authority of each **limited subsystem** must designate as overall responsible operator, an operator who holds a limited subsystem operator's certificate for that type of subsystem. Note: this would include certificates that are deemed to be limited subsystem certificates (see section 4.3.2 of this guide, Transferability of Operator Certificates).

To 'designate' means to appoint an operator as holding the position of overall responsible operator. It must be clear to other operators working in the subsystem, and to the ministry inspector, who the overall responsible operator is for each shift. The expectation is that the overall responsible operator would be identified either through recording the ORO's name in the daily log, through a memo that is posted, etc.

The intent of the regulation is that there be an ORO designated for a subsystem at all times. In order to achieve this goal, an owner or operating authority can designate one operator to be the ORO for particular shifts or days and another operator as the ORO for the other shifts or days, provided there is only one ORO designated at any given time (and that whoever is designated as the ORO meets the requirements of holding a certificate for that type of subsystem, of the same class or higher than that subsystem and is fully aware that they are the ORO assigned at that time).

The ORO may have responsibility for more than one subsystem provided it does not affect their ability to perform their responsibilities.

The ORO can be off-site; however, he or she must be able to respond immediately and effectively to an emergency at the site.

Professional engineers without a drinking-water operator's certificate cannot be designated as overall responsible operator.

If a designated overall responsible operator holding the proper qualifications is absent or unable to act, the owner or operating authority or, if the owner or operating authority authorizes it, the overall responsible operator, may designate an operator who holds a certificate applicable to that type of subsystem and no more than one class lower to act on their behalf (for example, if the overall responsible operator for a Class IV distribution subsystem is absent, an operator holding a Class III distribution subsystem certificate can act in their place).

Owners/operating authorities of municipal residential systems can only rely on "backup" overall responsible operators for up to 150 days in any 12-month period in a municipal residential subsystem. The Director can make an exception if the Director is satisfied that the owner or operating authority cannot reasonably hire an operator holding a class of certificate as high or higher than the class of subsystem. The Director must also be satisfied that extending the time period will not result in a drinking water hazard or a significant risk to the natural environment.

The duties of an overall responsible operator cannot be delegated to an operator-in-training.

7.2 Operator-in-Charge

The owner or operating authority of each subsystem must designate one or more operators-incharge.

An **operator-in-charge** means an operator or professional engineer who is designated as an operator-in-charge of a subsystem under section 25 of O. Reg. 128/04.

An operator-in-charge can be any operator, except an operator-in-training.

The owner or operating authority can also designate a professional engineer, who does not have an operator's certificate, as operator-in-charge. However, the owner can only rely on a professional engineer or series of professional engineers to be the operator-in-charge for up to 180 days in any 24-month period.

A professional engineer means a professional engineer as defined in the *Professional Engineers Act*.

The owner or operating authority must ensure that records are maintained of the amount of time each operator works as operator-in-charge.

7.2.1 Duties of Operator-in-Charge

An operator-in-charge is authorized to:

- set operational parameters for the subsystem or for a process that controls the effectiveness or efficiency of the subsystem; and
- direct or instruct other operators in the subsystem to set such operational parameters.

The operator-in-charge shall:

- take all steps reasonably necessary to operate the processes within his or her responsibility in a safe and efficient manner, in accordance with the relevant operations manuals;
- ensure that the processes within his or her responsibility are measured, monitored, sampled and tested in a manner that permits them to be adjusted when necessary;
- ensure that records are maintained of all adjustments made to the processes within his or her responsibility; and
- ensure that all equipment used in the processes within his or her responsibility is properly
 monitored, inspected and evaluated and that records of equipment operating status are
 prepared and available at the end of every operating shift.

The main purpose of creating an operator-in-charge (OIC) position is to ensure that operators securing a higher class of certificate have had the experience and responsibility reflected in the duties of an OIC. For example, to secure a Class III

or IV certificate, the operator must have a specific number of years of experience as an OIC.

For more information on the roles and responsibilities of the ORO and OIC, please review ministry guideline 5.1.

7.3 Strikes and Lock-outs

During a strike or a lockout involving operators employed in a subsystem, the Director may direct that the subsystem be allowed to operate without the presence of an overall responsible operator or certified operator for that type of subsystem. However, the Director must be satisfied the system can be operated without risk to human health or the natural environment.

To assist the Director in making such determination, the owner or operating authority must submit a 'strike plan' containing specific information. Details on the information required can be secured from the office of the Certification Administrator.

Information on how to prepare for a strike or lock-out can be found in ministry guideline 5.2.

7.4 Recordkeeping re: Operation of Subsystem

The owner or operating authority must ensure that logs or other forms of record-keeping are available to record information about the operation of the subsystem.

Entries into such records must be made chronologically. Entries can only be made by the overall responsible operator or the operator-in-charge or by a person authorized to do so by the owner, operating authority, overall responsible operator or the operator-in-charge. The person who makes the entry must be clearly identified on the record.

The operator-in-charge or another authorized person must record the following information on each operating shift:

- date, time of day the shift began and ended, and number or designation of the shift;
- names of all operators on duty during the shift;
- any departures from normal operating procedures that occurred during the shift and time they occurred;
- any special instructions that were given during the shift to depart from normal operating procedures and the person who gave the instructions;
- any unusual or abnormal conditions that were observed in the subsystem during the shift, any action that was taken and any conclusions that were drawn from the observations;
 and

• any equipment that was taken out of service or ceased to operate during the shift and any action taken to maintain or repair equipment during the shift.

The owner or operating authority must ensure that all records are accessible at the subsystem for at least five years after the last entry (in the case of a book type record keeping method) or for at least five years after each entry (in the case of a loose-leaf or electronic record keeping method). Copies or summaries of the records must be given to the Director when requested.

7.5 Operators and Maintenance Manuals

The owner or operating authority shall ensure that operators and maintenance personnel must have ready access to the operations and maintenance manuals that contain the plans, drawings and process descriptions necessary for the safe and efficient operation of the subsystem.

8 Owner/Operating Authority Responsibilities

Owners and operating authorities have been assigned specific responsibilities under O. Reg. 128/04. The table below lists these responsibilities and identifies when the responsibility is solely that of the owner, versus both that of the owner and operating authority.

An **owner** is defined in the SDWA as every person who is a legal or beneficial owner of all or part of the system, but does not include the Ontario Clean Water Agency where it is registered on title as the owner of the system.

An operating authority is defined under the SDWA as the person or entity that is given responsibility by the owner for the operation, management, maintenance or alteration of the system.

An example of an operating authority is the Ontario Clean Water Agency, the Public Works Department of a municipality, or a person assigned the responsibility described above.

| Responsibilities | Owner | Op. Auth. |
|---|-------|-----------|
| File an application for subsystem classification | ✓ | |
| Ensure the certificate of subsystem classification displayed in | ✓ | ✓ |
| workplace | | |
| Ensure that every operator employed in the subsystem holds a | ✓ | ✓ |
| certificate applicable to that subsystem, or a conditional certificate | | |
| Ensure that a copy of the certificate of every certified operator and | ✓ | ✓ |
| water quality analyst in their employ is displayed at the workplace of | | |
| the operator or water quality analyst, or if this is not practical, then at | | |
| the premises from which the workplace is managed | | |
| Designate an overall responsible operator | ✓ | ✓ |
| Revoke overall responsible operator designation of grandparented | ✓ | ✓ |
| operator if he/she fails to pass certification exam removing | | |
| grandparented status by May 1, 2005 | | |

| Designate one or more operators as operators-in-charge | √ | ✓ |
|--|--------------|-----------|
| Ensure that records are maintained of the amount of time each operator | ✓ | ✓ |
| works as an operator-in-charge | | |
| Ensure that logs or other record-keeping mechanisms are provided to | ✓ | ✓ |
| record information concerning the operation of the subsystem | | |
| Ensure that logs and other record-keeping methods are accessible in the | ✓ | ✓ |
| subsystem for: | | |
| at least 5 years after last entry was made if a book type record | | |
| at least 5 years after each entry was made if a loose-leaf or | | |
| electronic record kept on a continuous basis | | |
| Ensure that operators and maintenance personnel have ready access to | \checkmark | ✓ |
| operations and maintenance manuals that contain plans, drawings, and | | |
| process descriptions sufficient for the safe and efficient operation of | | |
| the subsystem | | |
| Responsibilities | Owner | Op. Auth. |
| Take reasonable steps to ensure that every operator and water quality | \checkmark | ✓ |
| analyst in their employ complete the required annual number of hours | | |
| of training | | |
| Retain for 5 years training records for on-the-job training for operators | ✓ | ✓ |
| and water quality analysts in their employ | | |

9 Fee Schedule

The fees related to the operator and water quality certification program are shown in Table 5 below:

Table 5

| Fee | Drinking Water Operator Fee | Operators-in-Training | | Wastewater Operator Fee | Water Quality Analyst |
|-----------------------------|-----------------------------------|-----------------------|--------------------|----------------------------|--------------------------|
| | | Drinking Water OIT | Wastewater OIT | | |
| Exam | \$75 | \$30 (all 4 exams) | \$30 (all 4 exams) | \$75 | \$75 |
| Certificate | \$115 | \$30 | N/A | \$115 | \$115 |
| Certificate Renewal | \$115 | \$115 | \$75 | \$75 | \$115 |
| Late Renewal | \$25 | N/A | N/A | N/A | \$25 |
| Replacement Certificate | \$75 | \$75 | \$75 | \$75 | \$75 |
| Facility Classification* | \$150 | N/A | N/A | N/A | N/A |
| Course Assessment** | \$50 + \$30 per CEU | N/A | N/A | N/A | \$50 + \$30 per CEU |

^{*} paid by owner ** paid by course provider

The appropriate fees must be enclosed with applications. The 'Guide to Completing MOE Certification Forms' provides further detail on making payment.

Beginning April 1, 2009, all fees are payable to the Minister of Finance

9.1 Application Forms

When applying for exams or certificates, please ensure that all documentation, fees, and verification forms are fully completed. Verification of employment (experience forms) must be signed by an authorized representative of the employer.

Type or print all information clearly, using a pen only. Please keep a copy of all forms submitted. Application forms, supporting documents and fees are to be forwarded to the office of the Certification Administrator.

10 Preparing for Certification – Study Guides

The certification office has a number of study materials and aids to assist operators prepare for exams. For a list of current study materials and for recommendations on other materials please visit the certification office's website. See section 12 of this guide for contact information.

11 WWOCS (Water Wastewater Operator Certification System)

Applicants to the Certification Program are able to apply for examinations, certificate renewals and upgrades and to order resources online. In order to access the Certification Program information system, an operator must obtain a user ID and password from the Certification Program Administrator. The application form to request a user ID can be found on the Program Administrator's website, or by accessing the system via the internet at the following web address: www.environet.ene.gov.on.ca/wwocs_web.

For more information on the system, or to obtain a user guide, please contact the Program Administrator.

12 How to Obtain More Information

For more information, a copy of the Resource Guide, Need-To-Know guides, Forms and the Guide to Completing Certification Form, copies of O. Reg. 128/04, or to order manuals, please contact the office of the Certification Administrator:

Ontario Water Wastewater Certification Office (OWWCO) 302 The East Mall

Suite 410

Etobicoke, ON M9B 6C7 Telephone: (416) 231-2100

Fax: (416) 231-2107 Email: info@owwco.ca

www.owwco.ca

For more information on the required Drinking Water Operators courses, Entry Level course and Mandatory Renewal Course, please contact the Walkerton Clean Water Centre:

Walkerton Clean Water Centre P.O. Box 160, 20 Ontario Rd., Walkerton, Ontario NOG 2V0

Telephone: 519.881.2003 Toll Free: 1-866-515-0550

Fax: 519.881.4947

Email: <u>inquiry@wcwc.ca</u>
Website: <u>www.wcwc.ca</u>